

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellants: David J. Waller	<b><u>CERTIFICATE OF FACSIMILE TRANSMISSION</u></b> I hereby certify that this paper is being facsimile transmitted to the <b>United States Patent and Trademark Office,</b> <b>Alexandria, Virginia</b> on the date below.
Title: PRINTING MECHANISM AND METHOD	<i>Todd A. Rathe</i> (Printed Name)
Appl. No.: 10/780,169	(Signature)
Filing Date: 02/17/2004	(Date of Deposit)
Examiner: Uhlenhake, Jason S.	
Art Unit: 2853	

**BRIEF ON APPEAL**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**1. Real Party in Interest**

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249, Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware corporation, headquartered in Palo Alto, California. The general or managing partner of HPDC is HPQ Holdings, LLC.

## **2. Related Appeals and Interferences**

There are no related appeals or interferences that will directly affect, be directly affected by, or have a bearing on the present appeal, that are known to Appellants or Appellants' patent representative.

## **3. Status of Claims**

Claims 1-56 were originally pending in the application. In response to a first substantive Office Action mailed on April 14, 2006, Claim 1 was amended. This is an appeal from the Final Office Action mailed on September 28, 2006 finally rejecting Claims 1-56. The present appeal is directed to Claims 1-56, i.e., all of the presently pending claims that stand rejected in this application.

## **4. Status of Amendments**

No amendments were filed after the Final Office Action.

## **5. Summary of Claimed Subject Matter**

Claim 1 is directed to a printhead servicing mechanism, comprising:

an axially movable driveshaft (52, 252) including a gear (54a, 254); and

a sled (34a, 34b) including first and second engagement structures (42, 43)

each adapted to selectively engage said gear and a retaining structure (49)

positioned between said first and second engagement structures (Fig. 2; Fig. 14).

Claim 13 is directed to a printer (10) comprising:

first and second sleds (34a, 34b), said first sled (34a) including a first

engagement structure (42, 242) and first and second retaining walls (48, 49)

positioned on opposite sides of said first engagement structure, and said second

sled (34b) including a second engagement structure (43) positioned adjacent said second retaining wall;

a servicing station drive structure (54a, 254) movable between a disengaged position, a first engaged position, and a second engaged position, said drive structure in the first engaged position engaging said first engagement structure and

said drive structure in the second engaged position engaging said second engagement structure; and

a biasing member (54c) that biases said servicing station drive structure to move from said first engaged position to said second engaged position.

Claim 14 is directed to the printer according to claim 13 wherein said first retaining wall (48, 248) includes an access region(108), said drive structure moving through said access region when said drive structure is moved from the disengaged position to the first engaged position (Fig. 5, Fig. 14).

Claim 15 is directed to the printer according to claim 13 wherein said second retaining wall (49) includes an access region (110, 112), said drive structure moving through said access region when said drive structure is moved from the first engaged position to the second engaged position (Fig. 5).

Claim 16 is directed to the printer according to claim 13 further comprising a biasing member (54c,) that biases said drive structure to move from the first engaged position to the disengaged position, said first retaining wall including a retaining region (106) that retains said drive structure in said first engaged position (page 6, lines 9-12) and against biased movement to said disengaged position when said drive structure is positioned within said retaining region.

Claim 19 is directed to a printer of claim 13, wherein the servicing station drive structure (54a, 254), when in the disengaged position, is not in contact with either of the first and second engagement structures (42, 43; Figure 5, Figure 11). In the first engaged position, the servicing station drive structure (54a, 254) is powered by a power shaft (28, 228; Figure 2) and mates the with the first engagement structure (42) to translate the first servicing sled (34a) parallel to a sled translation axis (page 6, lines 6-9). In the second engaged position, the servicing station drive structure (54a, 254) is powered by the power shaft (20, 228) and mates with the second to engagement structure (43) to translate the second servicing sled (34b) parallel to the sled translation axis (page 10, lines 19-22).

Claim 20 is directed to a printing mechanism (10) including a printhead (18), comprising:

means (34a, 34b) for servicing said printhead, said means for servicing including means (48,49) for retaining and first and second means(42, 43) for engaging; and

means (54a, 254) for translating said means (34a, 34b) for servicing said printhead, said means for translating operable to move from a first translating position in engagement with said first means for engaging to a second translating position in engagement with said second means for engaging,

wherein said means for retaining includes a retaining region (103a, 103b), and wherein said means for retaining retains said means for translating in said first translating position when said means for translating is positioned within said retaining region (103a, 103b).

Claim 21 is directed to the printing mechanism (10) according to claim 20 further comprising means (80) for shifting said means for translating between a disengaged position and said first translating position, said means (80) for shifting biased to shift said means for translating into said disengaged position in the absence of an external force on said means for shifting (page 5, lines 5-10).

Claim 24 is directed to A method of actuating a servicing mechanism (36, 37, 38 to service a printhead (18, 218), comprising:

moving a translation device (54a) into engagement with a retaining region(103a, 103b) of a first servicing mechanism(48);

powering said translation device such that said first servicing mechanism is moved with respect to said translation device such that said translation device is positioned out of said retaining region (103a, 103b);

moving said translation device into engagement with a second region (104) of said servicing mechanism (34b); and

powering said translation device such that said second servicing mechanism (34b) is moved with respect to said translation device.

Claim 31 is directed to a printhead servicing mechanism, comprising:

a driveshaft (52, 252); and

a sled (34a, 34b) including a rack (42, 43) adapted to selectively engage said driveshaft and

a retaining wall (48, 49) positioned to retain said driveshaft on said rack in a zone (103).

Claim 42 is directed to a printer (10) comprising:

a sled (34a) including an engagement structure (54a) and a retaining structure (48, 49);

a power shaft (28, 228) that transmits power to a driveshaft (52, 252); and

the drive shaft (52, 252) movable between an engaged position and a disengaged position, said driveshaft (52, 252) in the engaged position engaging said power shaft (28, 228) and said engagement structure of said sled so as to transmit power from said power shaft to said sled,

wherein said sled retaining structure (48, 49) retains said driveshaft in said engaged position in a predetermined zone (103, 104) of said retaining structure (48, 49).

Claim 46 is directed to a printing mechanism (10) including a printhead (18), comprising:

means (54a) for translating a means (36, 37, 38) for servicing said printhead, said means for translating biased to move from a translating position and a non-translating position in the absence of an external force on said means for translating (page 5, lines 5-10).; and

means (36, 37, 38) for servicing said printhead (18), said means for servicing including means (48, 49) for retaining said means for translating in engagement with said means for servicing in a predetermined zone (103, 104) of engagement of said means for retaining (48, 49).

Claim 51 is directed to a method of actuating a servicing mechanism (36, 37, 38) to service a printhead (18), comprising:

moving a translation device (54a, 254) into engagement with a first region (103) of a servicing mechanism (36, 37, 38); and

powering said translation device such that said servicing mechanism is moved with respect to said translation device and such that a second region (104) of said servicing mechanism is moved into engagement with said translation device, said second region retaining said translation device in contact with said servicing mechanism..

## **6. Grounds of Rejection to be Reviewed on Appeal**

The issues on appeal are (1) whether the Examiner erred in rejecting Claims 1, 2, 4 and 9 under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,587,729 (Lee); (2) whether the Examiner erred in rejecting claims 13 and 19 under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,907,334 (Hirano et al.); (3) whether the Examiner erred in rejecting claims 31-35, 38-39, 42 and 43 under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 6,172,691 (Belon et al); (4) whether the Examiner erred in rejecting claims 20-22, 24-28, 46-47 and 51-54 under 35 U.S.C. § 102(e) as being as being anticipated by U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (5) whether the Examiner erred in rejecting claims 5-6 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent No. 6,172,691 (Belon et al); (6) whether the Examiner erred in rejecting claim 7 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent No. 6,172,691 (Belon et al) and further in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al. (7) whether the Examiner erred in rejecting claims 14-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano et al.) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (8) whether the Examiner erred in rejecting claim 19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano et al.) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of U.S. Patent No. 5,587,729 (Lee); (9) whether the Examiner erred in rejecting claim 37 under 35 U.S.C. § 103(a) as being unpatentable over U.S.

Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of US Patent No. 6,357,851 (Gaasch); (10) whether the Examiner erred in rejecting claims 36, 40-41, 44-45 and 55 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (11) whether the Examiner erred in rejecting claim 30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (12) whether the Examiner erred in rejecting claim 56 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent No. 5,325,151 (Kimura et al.); and (13) whether the Examiner erred in rejecting claim 50 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2004/0252154 (Griesemer et al) in view of US Patent No. 6,328,412 (Taylor et al.).

## **7. Argument**

### **I. Legal Standards**

#### **A. Law of Anticipation**

Claims 1, 2, 4, 9, 20-22, 24-28, 31-35, 38-39, 42, 43, 46-49 and 51-54 have been rejected under 35 U.S.C. § 102(b), which states:

A person shall be entitled to a patent unless –

...

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States,

....

Under Section 102, a claim is anticipated, i.e., rendered not novel, when a prior art reference discloses every limitation of the claim. In re Schreiber, 128 F.3rd 1473, 1477 (Fed. Cir.1997). Although a prior art device “may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or

motivation in the reference to do so.” In re Mills, 916 F.2d 680, 682 (Fed. Cir. 1990). “Rejections under 35 U.S.C. § 102(a) are proper only when the claimed subject matter is identically disclosed or described in the prior art.” In re Arklely, Eardley, and Long, 172 U.S.P.Q. 524, 526 (CCPA 1972).

Claim terms will be given their ordinary and accustomed meaning, unless there is “an express intent to impart a novel meaning to [the] claim [term]” by the patentee. York Prods., Inc. v. Cent. Tractor Farm & Family Ctr., 99 F.3d 1568, 1572 (Fed. Cir. 1996); Sage Prods. v. Devon Indus., Inc., 126 F.3d 1420, 1423 (Fed. Cir. 1997). The ordinary and accustomed meaning of a claim term is determined by reference to dictionaries, encyclopedias, and treatises available at the time of the patent. See Texas Digital Systems, Inc., 308 F.3d at 1203. Such references are always available for claim construction purposes and are neither extrinsic nor intrinsic evidence. See Texas Digital Systems, Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202-03 (Fed. Cir. 2002).

In order to impart a specific meaning to a claim term, i.e., for the inventor to be her own lexicographer, such lexicography must appear “with reasonable clarity, deliberateness, and precision.” In re Paulsen, 30 F.3d 1475, 1480 (Fed. Cir. 1994). However, intrinsic evidence may be consulted to determine the definite meaning of a claim term that is unclear. CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1367 (Fed. Cir. 2002). A claim term may be redefined without any express statement of redefinition in the specification. Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc., 262 F.3d 1258, 1268 (Fed. Cir. 2001). “[A] claim term will not carry its ordinary meaning if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment” or “described a particular embodiment as important to the invention.”

#### B. Law of Obviousness

Claims 5-7, 14-18, 20, 30, 36, 40-41, 44-45, 50 and 55-56 are rejected under 35 U.S.C. § 103(a), which states:



A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The legal standards under 35 U.S.C. § 103(a) are well-settled. Obviousness under 35 U.S.C. § 103(a) involves four factual inquiries: 1) the scope and content of the prior art; 2) the differences between the claims and the prior art; 3) the level of ordinary skill in the pertinent art; and 4) secondary considerations, if any, of nonobviousness. See Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966).

In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of obviousness based upon the prior art. In re Piasecki, 745 F.2d 1468, 1471-72, 223 U.S.P.Q. 785, 787-88 (Fed. Cir. 1984). “[The Examiner] can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references.” In re Fritch, 972 F.2d 1260, 1265, 23 U.S.P.Q. 2d 1780, 1783 (Fed. Cir. 1992).

As noted by the Federal Circuit, the “factual inquiry whether to combine references must be thorough and searching.” McGinley v. Franklin Sports, Inc., 262 F.3d 1339, 60 U.S.P.Q. 2d 1001 (Fed. Cir. 2001). Further, it “must be based on objective evidence of record.” In re Lee, 277 F.3d 1338, 61 U.S.P.Q. 2d 1430 (Fed. Cir. 2002). The teaching or suggestion to make the claimed combination must be found in the prior art, and not in the Appellant’s disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q. 2d 1438 (Fed. Cir. 1991). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q. 2d 1430 (Fed. Cir. 1990). “It is improper, in determining whether a

person of ordinary skill would have been led to this combination of references, simply to '[use] that which the inventor taught against its teacher.'" Lee (citing W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 U.S.P.Q. 303, 312-13 (Fed. Cir. 1983)).

Teaching away from the claimed invention is a strong indication of non-obviousness and an improper combination of references. U.S. v. Adams, 383 U.S. 39 (1966).

**II. The Examiner's Rejection of Claims 1-2, 4, and 9 under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,587,729 (Lee) Should Be Reversed Because Lee Does Not Disclose Every Limitation of Each of the Claims.**

The claimed invention is not anticipated under § 102 unless each and every element of the claimed invention is found in the prior art. (Hydratech, Inc. v. Monochronal Antibodies, Inc., Fed. Cir. 1986). Accordingly, the rejection of these claims under 35 U.S.C. § 102(b) is improper and should be reversed.

Independent Claim 1 is directed to a printed servicing mechanism which includes an axially movable driveshaft including a gear and a sled including first and second engagement structures each adapted to selectively engage said gear and retaining structure position between the first and second engagement structures.

Lee fails to disclose an axially movable driveshaft. In rejecting claim 1, the Examiner asserts that Lee does disclose and actually movable driveshaft including a gear by pointing to Figure 10; column 5, line 50-64. However, Figure 10 does not disclose and actually movable driveshaft. Axl and 36 is not axially movable. As one of ordinary skill in the art clearly knows, a shaft is axially movable if it moves in a direction along its axis. A rotating shaft is not an axially movable shaft. Thus, the rejection of claim 1 should be reversed. The rejection of claims 2, 4 and 9 which depend from claim 1 should be reversed for the same reasons.

**III. The Examiner's Rejection of Claims 13 and 19 under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,907,334 (Hirano) Should Be Reversed Because Hirano Does Not Disclose Every Limitation of Each of the Claims.**

**A. Claim 13**

Claim 13 recites a printer including first and second sleds, the first sled including a first engagement structure and first and second retaining walls position on opposite sides of the first engagement structure and the second sled including a

second engagement structure positioned adjacent the second retaining wall. The printer further comprises a servicing station drive structure movable between a disengaged position, a first engaged position and a second engaged position. When the drive structure is in the first engage position engaging the first engagement structure. When the drive structure is in the second engage position, the drive structure engages the second engagement structure. Lastly, the printer include a biasing member that biases a servicing station drive structure to move it from the first engaged position to the second engaged position. An example of this operation is shown in Figure 5.

Hirano fails to disclose a servicing station drive structure which moves between a disengaged position, a first engage position in engagement with a first engagement structure of a first sled and a second engage position in engagement with a second engagement structure of a second sled. In contrast, Hirano merely discloses color cap 34 and black cap 37 which are moved into and out of engagement with opposite print heads 20, 21 and 22 or print head 11, respectively. Hirano does not disclose a drive structure that moves between two different positions in which the drive structure engages different sleds in the different positions.

In rejecting claim 13, the Examiner characterizes carriers 10 and 19 of Hirano as the first and second sleds. However, the Examiner also characterizes carriers 10, 19 as a service station drive structure. Obviously, carriers 10, 19 cannot be both sleds and a servicing station drive structure. Moreover, carriers 10, 19 merely carry head 11 and heads 20, 21 and 22, respectively. Carriers 10, 19 do not move between different engaged positions in which they engage different sleds.

Furthermore, Hirano fails to disclose any biasing member that biases carrier 10, 19 from a first engaged position to a second engaged position. In rejecting claim 13, the Examiner asserted that Hirano discloses such a biasing member by referring to Column 8, line 32-37. However, Column 8, lines 32-37 of Hirano merely states:

The CPU 121 controls the carriage motor 30 (Fig.1) and a sheet of feeding motor 5 (FIG. 1) through an output port 126 and a motor driver 127, and also controls the

recording heads 11, 20, 21 and 22 through a head control circuit 129 on the basis of record information stored in the data memory 123.

Obviously, this citation to Hirano says absolutely nothing about a biasing member. Thus, the Examiner has failed to establish a prima facie case of anticipation with regard to claim 13. Accordingly, the rejection of claim 13 should be reversed. The rejection of claim 19, which depends from claim 13, should be reversed for the same reasons.

B. Claim 19

Claim 19 depend from claim 13 and recites that the service station drive structure, when in the first engage position, is powered by a power shaft and meet with the first engagement structure to translate the first servicing sled parallel to a sled translation axis. Claim 19 further recites that the servicing station drive structure, and the second engage position, is powered by the power shaft and mates with the second engagement structure to translate the second servicing sled parallel to the sled translation axis.

Hirano fails to disclose a servicing station drive structure that translates a servicing sled parallel to a sled translation axis. Hirano fails to disclose a servicing station drive structure powered by a power shaft. In rejecting claim 19, the Examiner fails to even establish a prima facie case of anticipation. The Examiner fails to allege any element of Hirano as constituting a servicing station drive structure that is powered by a power shaft and that translates a servicing sled parallel to a sled translation axis.

In rejecting claim 13, the Examiner characterized carrier 10, 19 of Hirano as the servicing station drive structure. However, it is clear that carrier 10, 19 are not powered by a power shaft and do not translate a servicing sled. Caps 34 and 37 are not translated by carriers 10, 19. Thus, the rejection of claim 19 should be reversed for this additional reason.

**IV. The Examiner's Rejection of Claims 31-35, 38-39, 42 and 43 under 35 U.S.C. § 102(B) As Being As Being Anticipated by U.S. Patent No. 6,172,691 (Belon et Al) Should Be Reversed Because Belon Does Not Disclose Every Limitation of Each of the Claims.**

**A. Claim 31**

Claim 31 recites a printed servicing mechanism which includes a driveshaft and a sled including a rack adapted to selectively engage the driveshaft. A sled further includes a retaining wall position to retain the driveshaft on the rack in a zone.

Belon fails to disclose a printhead servicing mechanism which includes a sled including a rack adapted to selectively engage the drive shaft. The Examiner characterized activation shaft 150 of Belon as the drive shaft. However, nowhere does Belon disclose or suggest that shaft 150 is ever selectively engageable with rack assembly 198. In contrast, shaft 150 of Belon appears to be always in an engagement with rack assembly 198. Shaft 150 is never selectively engageable with rack assembly 198.

During the Examiner interview held on July 14, 2006, the Examiner referred to movement of rocker arm 146 to engage rocker gear 144 with activation gear 152. However, although activation shaft 150 may be selectively engageable with rocker gear 144, Belon does not teach that activation shaft 150 is selectively engageable with rack assembly 198. Thus, the rejection of claims 31 should be reversed. Claims 32-35 and 38-39 depend from claim 31 and are patently distinct over Belon for the same reasons.

**B. Claim 42**

Claim 42 recites a printer which includes a sled having an engagement structure and further recites a drive shaft that is movable between an engaged position and a disengaged position with respect to the engagement structure.

Belon fails to disclose a drive shaft that is movable between an engaged position and a disengage position with respect to engagement structure of a sled.

Once again, the Examiner characterized activation shaft 150 of Belon as the drive shaft. However, nowhere does Belon disclose that activation shaft 150 is movable between an engaged position and a disengaged position with respect to engagement structure of a sled. In contrast, deer and 190 of shaft 150 is always in engagement with the idler gear which is always in engage with rack assembly 198. Thus, the rejection of claim 42 should be reversed. Claim 43 depends from claim 42 and is patentably the distinct over Belon for the same reasons.

**V. The Examiner's Rejection of Claims 20-22, 24-28, 46-49 and 51-54 under 35 U.S.C. § 102(B) As Being As Being Anticipated by U.S. Patent Publication No. 2004/0252154 (Griesemer et al) Should Be Reversed Because Griesemer et al. Does Not Disclose Every Limitation of Each of the Claims.**

**A. Claim 20**

Claim 20 recites a printing mechanism which includes means for servicing a printhead, wherein the means for servicing includes means for retaining and the first and second means for engaging. Claim 20 further recites means for translating the means for servicing, wherein the means for translating moves from a first translating position in engagement with the first means for engaging in a second translating position in engagement with the second means for engaging.

Griesemer fails to disclose or suggest a printing mechanism which includes means for servicing a printhead, wherein the means for servicing includes means for retaining and the first and second means for engaging. Griesemer also fails to disclose means for translating the means for servicing, wherein the means for translating moves from a first translating position in engagement with the first means for engaging in a second translating position in engagement with the second means for engaging. During the Examiner Interview held on July 14, 2006, the Examiner characterized carrier engagement member 74 as a means for translating. The Examiner further characterized guides slots 86 as the retaining region or means for retaining. However, Claim 20 recites that the means for translating translates or moves the means for servicing. The means for servicing is recited as including the

means for retaining. Thus, claim 20 recites at the means for training also are translated. Guide slots 86 of Griesemer (characterized as the means for retaining) are never translated. Moreover, nowhere to Griesemer disclose that carrier engagement member 74 of Griesemer (characterize as the translating means) moves between different translating positions in engagement with either the first means for engaging or the second means for engaging. Thus, the rejection of claim 20 should be reversed. Claims 21-22 depend from claim 20 and are patentably distinct over Griesemer for the same reasons.

B. Claim 24

Claim 24 recite a method of actuating a service mechanism to service a printhead. The method includes moving a translation device into engagement with a retaining portion of a first servicing mechanism, powering the translation device such that the first servicing mechanism is moved with respect to the translation device such that the translation device is positioned out of the retaining region, moving the translation device into engagement with the second region of the servicing mechanism and powering the translation device such at the second servicing mechanism is moved with respect to the translation device.

Griesemer fails to disclose moving a first servicing mechanism with respect to a translation device and moving a second servicing mechanism with respect to the translation device. During the Examiner Interview held on July 14, 2006, the Examiner characterized carrier engagement member 74 as the translation device. However, as noted during the Examiner Interview, nowhere does Griesemer disclose that carrier engagement member 74 moves with respect to a servicing mechanism (sled 70). In fact, member 74 is fixed to sled 70.

Moreover, the Examiner further characterized guide slots 86 of Griesemer as the retaining regions. However, nowhere does Belon disclose that carrier engagement member 74 is moved into engagement with a retaining member (guide slots 86). Thus, the rejection of claim 24 should be reversed. Claims 25-28 depend from claim 24 and are patentably distinct over Griesemer for the same reasons.



C. Claim 46

Claim 46 recites a printing mechanism which includes means for translating a means for servicing a print head. The means for servicing includes means for retaining the means for translating in engagement with the means for servicing in a predetermined zone of engagement of the means for retaining.

Griesemer fails to disclose means for translating and means for servicing, wherein the means for servicing includes means for retaining the means for translating in engagement with the means for servicing in a predetermined zone of engagement of the means for retaining. During the Examiner Interview held on July 14, 2006, the Examiner characterized carrier engagement member 74 as the means for translating. The Examiner further characterized guide slots 86 as retaining means. Once again, claim 46 recites that the means for retaining retains a means for translating in engagement with the means for servicing in a predetermined zone of engagement with the means retaining. Carrier engagement member 74 is not positioned in a zone of guide slots 86. Moreover, guide slots 86 are not part of sled 70 (characterized as the means for servicing). Thus, the rejection of claim 46 should be reversed. Claims 47-49 depend from claim 46 and are patentably distinct over Griesemer for the same reasons.

D. Claim 51

Claim 51 recite a method of actuating a service mechanism which includes moving a translation device into engagement with a first region of a servicing mechanism and powering the translation device such that the servicing mechanism is moved with respect to the translation device and such that a second region of the servicing mechanism is moved into engagement with the translation device.

Griesemer fails to disclose moving a translation device into engagement with a first region of a servicing mechanism and powering the translation device such that the servicing mechanism is moved with respect to the translation device. Once again, during the Examiner Interview, the Examiner characterized carrier engagement member 74 as the translation device. Nowhere does Griesemer

disclose that member 74 is moved with respect to sled 70 (characterized as the servicing mechanism). Thus, the rejection of claim 51 should be reversed. Claims 52-54 depend from claim 51 and are patentably distinct over Griesemer for the same reasons.

**VI. The Examiner's rejection of claims 5-6 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent No. 6,172,691 (Belon et al) should be reversed because neither Lee nor Belon, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claims 5 and 6 depend from claim 1. The rejection of claims 5 and 6 should be reversed for the same reasons discussed above with respect to the rejection of claim 1 based upon Lee. Belon fails to satisfy the deficiencies of Lee.

**VII. The Examiner's rejection of claim 7 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent No. 6,172,691 (Belon et al) and further in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); should be reversed because neither Lee, Belon nor Griesemer, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 7 depends from claim 1. The rejection of claim and 7 should be reversed for the same reasons discussed above with respect to the rejection of claim 1 based upon Lee. Neither Belon nor Griesemer satisfy the deficiencies of Lee.

**VIII. The Examiner's rejection of claims 14-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); should be reversed because neither Hirano nor Griesemer, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

A. Claims 14-18

Claims 14-18 depend from claim 13 and overcome the rejection for the same reasons discussed above with respect to the rejection of claim 13 based upon Hirano et al.I. Griesemer fails to satisfy the deficiencies of Hirano. Accordingly, the rejection of claims 14-18 should be reversed.

B. Claims 14 and 15

Claim 14 depends from claim 13 and additionally recites that the first retaining wall includes an access region and that the drive structure moves through the access region when the drive structure is moved from the disengaged position to the first engaged position.

Claim 15 depends from claim 13 and recites that the second retaining wall includes an access region, wherein the drive structure moves through the access region when the drive structure is moved from the first engaged position to the second engaged position.

Neither Hirano nor Griesemer, alone or in combination, disclose or suggest the printer of claim 14, wherein the first retaining wall additionally includes an access region through which the service station drive structure moves when moving from a disengaged position to the first engaged position. He Examiner acknowledges that Hirano failed to disclose a retaining wall including an axis region. As a result, the Examiner attempts to additionally rely upon Griesemer and asserts that it would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Griesemer into the device of Hirano "for the purpose of guiding in securing the maintenance lead and engaging the service station to the print head when the print head is in the service area."

However, in contrast to the Examiner's assertion, it would not be obvious to one of more new skill the art to modify Hirano based upon Griesemer. In fact, it would make little sense. Guide slot 86 of Griesemer is used to raise and lower print head caps 101 and 102. In contrast, caps 34 and 37 are not raised and lowered, but

are moved in a sideways direction. Moreover, the Examiner's hypothetical combination would result in a complete reconstruction of Hirano substantially changing the principle of operation of Hirano or destroying the intended functioning of Hirano. As noted in MPEP 2143.01, THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE and THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE. Thus, the rejection of claim 14 should be reversed for this additional reason. For at least the same reasons, the rejection of claim 15 should also be reversed.

C. Claim 20

Claim 20 recites a printing mechanism which includes means for servicing a printhead, wherein the means for servicing includes means for retaining and the first and second means for engaging. Claim 20 further recites means for translating the means for servicing, wherein the means for translating moves from a first translating position in engagement with the first means for engaging in a second translating position in engagement with the second means for engaging.

Griesemer fails to disclose or suggest a printing mechanism which includes means for servicing a print head, wherein the means for servicing includes means for retaining and the first and second means for engaging. Griesemer also fails to disclose means for translating the means for servicing, wherein the means for translating moves from a first translating position in engagement with the first means for engaging to a second translating position in engagement with the second means for engaging. During the Examiner Interview held on July 14, 2006, the Examiner characterized carrier engagement member 74 as a means for translating. The Examiner further characterized guides slots 86 as the retaining region or means for retaining. However, Claim 20 recites that the means for translating translates or moves the means for servicing. The means for servicing is recited as including the means for retaining. Thus, claim 20 recites that the means for training also are translated. Guide slots 86 of Griesemer (characterized as the means for retaining are never translated. Moreover, nowhere to Griesemer disclose that carrier

engagement member 74 of Griesemer (characterize as the translating means) moves between different translating positions in engagement with either the first means for engaging or the second means for engaging. Hirano fails to satisfy these deficiencies of Griesemer. Thus, the rejection of claim 20 should be reversed. Claims 21-22 depend from claim 20 and are patentably distinct over Griesemer for the same reasons.

**IX. The Examiner's rejection of claim 19 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of U.S. Patent No. 5,587,729 (Lee); should be reversed because neither Hirano, Griesemer nor Lee, , alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 7 depends from claim 19. The rejection of claim and 7 should be reversed for the same reasons discussed above with respect to the rejection of claim 1 based upon Lee. Neither Hirano nor Griesemer satisfy the deficiencies of Lee.

**X. The Examiner's rejection of claim 37 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of U.S. Patent No. 6,357,851 (Gaasch); should be reversed because neither Belon, Griesemer nor Gaasch, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 37 depends from claim 31 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 31 based upon Belon. Neither Griesemer nor Gaasch, alone or in combination, satisfy the deficiencies of Belon.

**XI. The Examiner's rejection of claim 36, 40-41, 44-45 and 55 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) should**

**be reversed because neither Belon nor Griesemer, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claims 36, 40-41 and 55 depend from claim 31 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 31 based upon Belon. Claims 44-45 depend from claim 42 and overcome rejection for the same reasons discussed above with respect to the rejection of claim 42 based upon Belon. Griesemer fails to satisfy the deficiencies of Belon.

**X. The Examiner's rejection of claim 30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); should be reversed because neither Lee, nor Griesemer, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 30 depends from claim 1. The rejection of claim 30 should be reversed for the same reasons discussed above with respect to the rejection of claim 1 based upon Lee. Griesemer fails to satisfy the deficiencies of Lee.

**XI. The Examiner's rejection of claim 56 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent No. 5,325,151 (Kimura et al.) should be reversed because neither Belon nor Kimura, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 56 depends from claim 31 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 31 based upon Belon. Kimura fails to satisfy the deficiencies of Belon.

**XII. The Examiner's rejection of claim 50 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2004/0252154 (Griesemer et al) in view of US Patent No. 6,328,412 (Taylor et al), US Patent Publication to 003/0169312 and U.S. Patent No. 6,172,691 (Belon et al) should be reversed**

**because neither Griesemer, Taylor nor Belon, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 50 depends from claim 46 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 46 based upon Griesemer. Neither Taylor, Ota nor Belon, alone or in combination, satisfy the deficiencies of Belon.

### **Conclusion**

In view of the foregoing, the Appellants submit that (1) Claims 1, 2, 4 and 9 are not properly rejected under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,587,729 (Lee); (2) that claims 13 and 19 are not properly rejected under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,907,334 (Hirano et al.); (3) that claims 31-35, 38-39, 42 and 43 are not properly rejected under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 6,172,691 (Belon et al); (4) that claims 20-22, 24-28, 46-47 and 51-54 are not properly rejected under 35 U.S.C. § 102(e) as being as being anticipated by U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (5) that claims 5-6 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent No. 6,172,691 (Belon et al); (6) that claim 7 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent No. 6,172,691 (Belon et al) and further in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al. (7) that claims 14-18 and 20 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano et al.) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (8) that claim 19 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano et al.) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of U.S. Patent No. 5,587,729 (Lee); (9) that

claim 37 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of US Patent No. 6,357,851 (Gaasch); (10) that claims 36, 40-41, 44-45 and 55 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (11) that claim 30 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (12) that claim 56 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent No. 5,325,151 (Kimura et al.); and (13) that claim 50 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2004/0252154 (Griesemer et al) in view of US Patent No. 6,328,412 (Taylor et al.). Accordingly, Appellants respectfully request that the Board reverse all claim rejections and indicate that a Notice of Allowance respecting all pending claims should be issued.



**Summary**

For the foregoing, it is submitted that the Examiner's rejections are erroneous, and reversal of the rejections is respectfully requested.

Dated this 29<sup>th</sup> day of January, 2007.

P.O. Address:

RATHE PATENT & IP LAW  
10611 W. Hawthorne Farms Lane  
Mequon, WI 53097  
Telephone: (262) 478-9353

Respectfully submitted,

By Todd A. Rathe

Todd A. Rathe  
Registration No. 38,276

**CLAIMS APPENDIX**

1. (Previously Presented) A printhead servicing mechanism, comprising:  
an axially movable driveshaft including a gear; and  
a sled including first and second engagement structures each adapted to selectively engage said gear and a retaining structure positioned between said first and second engagement structures.
2. (Original) A printhead servicing mechanism according to claim 1 wherein said driveshaft is shiftable between a disengaged position and an engaged position wherein said gear engages one of said engagement structures.
3. (Original) A printhead servicing mechanism according to claim 2 wherein when said driveshaft is in the engaged position said gear is shiftable between a first engaged position and a second engaged position, wherein said gear in the first engaged position engages said first engagement structure and wherein said gear in the second engaged position engages said second engagement structure.
4. (Original) A printhead servicing mechanism according to claim 2 wherein said driveshaft in the engaged position is operatively connected to a power shaft that transmits power to said driveshaft.
5. (Original) A printhead servicing mechanism according to claim 2 further comprising a shift structure operatively connected to said driveshaft and moving between an engaged position and a disengaged position, wherein movement of said shift structure from said disengaged position to said engaged position moves said driveshaft from said disengaged position to said engaged position.
6. (Original) A printhead servicing mechanism according to claim 5 wherein said shift structure includes a biasing element that biases said shift arm into said disengaged position.

7. (Original) A printhead servicing mechanism according to claim 6 further comprising a printhead cartridge that overcomes said biasing element on said shift arm and moves said shift structure from said disengaged position to said engaged position.

8. (Original) A printhead servicing mechanism according to claim 3 wherein said driveshaft further includes a biasing member that biases said gear from said first engaged position to said second engaged position.

9. (Original) A printhead servicing mechanism according to claim 4 further comprising a motor that drives said power shaft.

10. (Original) A printhead servicing mechanism according to claim 1 wherein said sled includes a first sled including said first engagement structure and a cap, and a second sled including said second engagement structure and a wiper and a spittoon, wherein said first and second sleds are operable for movement independent of one another.

11. (Original) A printhead servicing mechanism according to claim 8 wherein when said gear is in said first engaged position and in a retaining portion of said retaining structure, said retaining structure retains said gear on said first engagement structure.

12. (Original) A printhead servicing mechanism according to claim 11 wherein said first engagement structure comprises a first rack, said second engagement structure comprises a second rack and said retaining structure comprises a retaining wall positioned therebetween, and said retaining wall comprising first and second end walls with said retaining portion extending therebetween.

13. (Original) A printer comprising:

first and second sleds, said first sled including a first engagement structure and first and second retaining walls positioned on opposite sides of said first engagement structure, and said second sled including a second engagement structure positioned adjacent said second retaining wall;

a servicing station drive structure movable between a disengaged position, a first engaged position, and a second engaged position, said drive structure in the first engaged position engaging said first engagement structure and said drive structure in the second engaged position engaging said second engagement structure; and

a biasing member that biases said servicing station drive structure to move from said first engaged position to said second engaged position.

14. (Original) A printer according to claim 13 wherein said first retaining wall includes an access region, said drive structure moving through said access region when said drive structure is moved from the disengaged position to the first engaged position.

15. (Original) A printer according to claim 13 wherein said second retaining wall includes an access region, said drive structure moving through said access region when said drive structure is moved from the first engaged position to the second engaged position.

16. (Original) A printer according to claim 13 further comprising a biasing member that biases said drive structure to move from the first engaged position to the disengaged position, said first retaining wall including a retaining region that retains said drive structure in said first engaged position and against biased movement to said disengaged position when said drive structure is positioned within said retaining region.

17. (Original) A printer according to claim 13 further comprising a biasing member that biases said drive structure to move from the first engaged position to the second engaged position, said second retaining wall including a retaining region that retains said drive structure in said first engaged position when said drive structure is positioned within said retaining region.

18. (Original) A printer according to claim 16 further comprising:  
a shift arm that pivots between an actuated position and a non-actuated position, wherein pivotal movement of said shift structure from the non-actuated position to the actuated position moves said drive structure from the disengaged position to the first engaged position,  
wherein said biasing member biases said shift arm to pivot from the actuated position to the non-actuated position; and  
a printhead carriage operable to pivot said shift arm from the non-actuated position to the actuated position by overcoming a biasing force of said biasing member.

19. (Original) A printer according to claim 13 wherein in the disengaged position said servicing station drive structure is not in contact with either of said first and second engagement structures, wherein in the first engaged position said servicing station drive structure is powered by a power shaft and mates with said first engagement structure to translate said first servicing sled parallel to a sled translation axis, and wherein in the second engaged position said servicing station drive structure is powered by said power shaft and mates with said second engagement structure to translate said second servicing sled parallel to said sled translation axis.

20. (Original) A printing mechanism including a printhead, comprising:  
means for servicing said printhead, said means for servicing including means for retaining and first and second means for engaging; and

means for translating said means for servicing said printhead, said means for translating operable to move from a first translating position in engagement with said first means for engaging to a second translating position in engagement with said second means for engaging,

wherein said means for retaining includes a retaining region, and wherein said means for retaining retains said means for translating in said first translating position when said means for translating is positioned within said retaining region.

21. (Original) A printing mechanism according to claim 20 further comprising means for shifting said means for translating between a disengaged position and said first translating position, said means for shifting biased to shift said means for translating into said disengaged position in the absence of an external force on said means for shifting.

22. (Original) A printing mechanism according to claim 20 wherein said printhead is configured to selectively actuate said means for shifting by advancing into and out of contact with said means for shifting.

23. (Original) A printing mechanism according to claim 21 wherein said means for servicing comprises first and second servicing sleds, said means for retaining comprises a retaining wall positioned on said first sled, said first and second means for engaging comprise, respectively, first and second racks each extending along said retaining wall, said first rack positioned on said first sled and said second rack positioned on said second sled, said means for translating comprises a driveshaft, and said means for shifting comprises a shift arm including a leaf spring, a first end adapted for contact with said printhead, and a second end secured to said driveshaft.

24. (Original) A method of actuating a servicing mechanism to service a printhead, comprising:

moving a translation device into engagement with a retaining region of a first servicing mechanism;

powering said translation device such that said first servicing mechanism is moved with respect to said translation device such that said translation device is positioned out of said retaining region;

moving said translation device into engagement with a second region of said servicing mechanism; and

powering said translation device such that said second servicing mechanism is moved with respect to said translation device.

25. (Original) A method according to claim 24 wherein the step of moving the translation device into engagement with the first servicing mechanism comprises moving a printhead carriage into contact with an actuation device so as to move the actuation device from a non-actuated position to an actuated position, wherein movement of said actuation device from said non-actuated position to said actuated position moves said translation device from a disengaged position into engagement with said first servicing mechanism.

26. (Original) A method according to claim 25, prior to moving said translation device into engagement with the second servicing mechanism, further comprising:

removing said printhead carriage from contact with said actuation device, whereafter a retaining wall of said retaining region retains said translation device in engagement with said first servicing mechanism in said retaining region.

27. (Original) A method according to claim 24 wherein said step of powering said translation device such that said translation device is positioned out of said retaining region comprises:

powering said translation device such that said first servicing mechanism is moved with respect to said translation device such that said translation device is moved into an access region of said first servicing mechanism; and

moving said translation device through said access region of said first servicing mechanism.

28. (Original) A method according to claim 27 wherein said translation device is biased by a biasing member to move through said access region of said first servicing mechanism.

29. (Original) A printer comprising:

a housing;

a printhead carriage positioned within said housing and supporting a printhead for movement along a printhead carriage axis between a printzone and a servicing region;

a feed roller drive shaft operable to move a sheet of print media through said printzone;

a servicing sled positioned within said servicing region and including a spittoon, a wiper, a cap, first and second racks and a guide wall positioned between said racks, said guide wall including a retaining region and an access region; and

a servicing sled drive shaft powered by said feed roller drive shaft, said servicing sled drive shaft including a gear slidably mounted thereon, and a biasing member secured to said shaft and said gear, said servicing sled drive shaft movable between a disengaged position wherein said gear is not in contact with said servicing sled and an engaged position wherein said gear is movable between contact with said first rack and second rack,

wherein said biasing member biases said gear to move from said first rack to said second rack when said gear is aligned with said access region of said guide wall and wherein said retaining wall retains said gear on said first rack when said gear is positioned adjacent said retaining region of said guide wall.

30. (Original) A printhead servicing mechanism according to claim 1 further comprising a biasing member coupled to said driveshaft for biasing the driveshaft out of engagement with said first and second engagement structures.



31. (Original) A printhead servicing mechanism, comprising:  
a driveshaft; and  
a sled including a rack adapted to selectively engage said driveshaft and  
a retaining wall positioned to retain said driveshaft on said rack in a zone.

32. (Original) A printhead servicing mechanism according to claim 31  
wherein said driveshaft is shiftable between a disengaged position and an engaged  
position wherein said driveshaft engages a powered gear and said rack.

33. (Original) A printhead servicing mechanism according to claim 32  
wherein said powered gear is operatively connected to a power shaft that, when said  
driveshaft is in the engaged position, said powered gear transmits power to said  
driveshaft.

34. (Original) A printhead servicing mechanism according to claim 33  
wherein said powered gear is an idler gear and wherein said power shaft transmits  
power to said driveshaft through said idler gear.

35. (Original) A printhead servicing mechanism according to claim 34  
further comprising a shift arm that moves between an engaged position and a  
disengaged position, wherein movement of said shift arm from said disengaged  
position to said engaged position moves said driveshaft into engagement with said  
idler gear and said rack.

36. (Original) A printhead servicing mechanism according to claim 35  
further comprising a printhead carriage that moves said shift arm from said  
disengaged position to said engaged position.

37. (Original) A printhead servicing mechanism according to claim 36  
wherein said retaining wall includes a first region and a second region, wherein

powering of said driveshaft moves said driveshaft from said first region to said second region of said rack, and wherein movement of said driveshaft from said first region to said second region of said rack moves said shift arm out of engagement with said printhead carriage.

38. (Original) A printhead servicing mechanism according to claim 33 further comprising a motor that drives said power shaft.

39. (Original) A printhead servicing mechanism according to claim 31 wherein said sled further includes a cap, a wiper and a spittoon.

40. (Original) A printhead servicing mechanism according to claim 36 wherein said shift arm includes a biasing element that biases said shift arm to move said driveshaft into said disengaged position when said driveshaft is not positioned in said zone of said retaining wall.

41. (Original) A printhead servicing mechanism according to claim 32 wherein when said driveshaft is in said disengaged position said retaining wall interferes with said driveshaft thereby preventing movement of said sled.

42. (Original) A printer comprising:  
a sled including an engagement structure and a retaining structure;  
a power shaft that transmits power to a driveshaft; and  
the driveshaft movable between an engaged position and a disengaged position, said driveshaft in the engaged position engaging said power shaft and said engagement structure of said sled so as to transmit power from said power shaft to said sled,

wherein said sled retaining structure retains said driveshaft in said engaged position in a predetermined zone of said retaining structure.

43. (Original) A printer according to claim 42 further comprising a shift mechanism that moves between an actuated position and a non-actuated position, wherein movement of said shift mechanism from the non-actuated position to the actuated position moves said driveshaft from the disengaged position to the engaged position.

44. (Original) A printer according to claim 43 further comprising a printhead carriage movable between an engaged position and a disengaged position, wherein movement of said printhead carriage from the disengaged position to the engaged position moves said shift mechanism from the non-actuated position to the actuated position.

45. (Original) A printer according to claim 43 wherein said shift mechanism comprises a shift arm including a biasing member, said biasing member biasing said shift arm into the non-actuated position in the absence of an external force on said shift arm.

46. (Original) A printing mechanism including a printhead, comprising:  
means for translating a means for servicing said printhead, said means for translating biased to move from a translating position and a non-translating position in the absence of an external force on said means for translating; and  
means for servicing said printhead, said means for servicing including means for retaining said means for translating in engagement with said means for servicing in a predetermined zone of engagement of said means for retaining.

47. (Original) A printing mechanism according to claim 46 further comprising means for shifting said means for translating between said translating position and said non-translating position, said means for shifting biased to translate said means for translating into said disengaged position in the absence of an external force on said means for shifting.

48. (Original) A printing mechanism according to claim 47 wherein said printhead is configured to selectively actuate said means for shifting by advancing into and out of contact with said means for shifting.

49. (Original) A printing mechanism according to claim 46 further comprising means for powering said means for translating, wherein said means for translating engages said means for servicing and said means for powering in said translating position.

50. (Original) A printing mechanism according to claim 47 wherein said means for servicing comprises a servicing sled including a rack that extends along a length of said sled, said means for retaining comprises a guide wall positioned adjacent to and extending along at least a portion of said rack, said means for translating comprises a driveshaft that engages a powered gear and said rack and is retained on said rack by said guide wall in said translating position, and said means for shifting comprises a shift arm including a leaf spring, a first end adapted for contact with said printhead, and a second end secured to said driveshaft.

51. (Original) A method of actuating a servicing mechanism to service a printhead, comprising:

moving a translation device into engagement with a first region of a servicing mechanism; and

powering said translation device such that said servicing mechanism is moved with respect to said translation device and such that a second region of said servicing mechanism is moved into engagement with said translation device, said second region retaining said translation device in contact with said servicing mechanism.

52. (Original) A method according to claim 51 wherein said step of moving the translation device comprises moving a printhead carriage into contact with an actuation device so as to move the actuation device from a non-actuated condition to

an actuated condition, wherein movement of said actuation device from said non-actuated position to said actuated position moves said translation device from a disengaged position into engagement with said first region of said servicing mechanism.

53. (Original) A method according to claim 52 further comprising:  
removing said printhead carriage from contact with said actuation device, whereafter said translation device remains engaged with said servicing mechanism while said translation device is in contact with said second region of said servicing mechanism, and  
thereafter, translating said servicing mechanism, such that said second region is moved with respect to said translation device, to service said printhead in the absence of said printhead carriage.

54. (Original) A method according to claim 53 further comprising translating said servicing mechanism such that said second region of said servicing mechanism is moved out of contact with said translation device, whereupon said translation device is biased into said disengaged position.

55. (Original) A printhead servicing mechanism according to claim 31 further comprising a biasing member coupled to said driveshaft for biasing the driveshaft out of engagement with said rack.

56. (Original) A printhead servicing mechanism according to claim 34 wherein said driveshaft includes projections, and said idler gear includes projections, and wherein in the engaged position said projections of said driveshaft mate with said projections of said idler gear.

circuit.

### **EVIDENCE APPENDIX**

There is no evidence previously submitted under 37 C.F.R. §§ 1.130, 1.131 or 1.132 or other evidence entered by the Examiner and relied upon by Appellant in this appeal. Accordingly, the requirements of 37 C.F.R. §§ 41.37(c)(1)(ix) are satisfied.

### **RELATED PROCEEDINGS APPENDIX**

There are no decisions rendered by a Court of the Board in a proceeding identified in the Related Appeals and Interferences section. Accordingly, the requirements of 37 C.F.R. §§ 41.37(c)(1)(x) are satisfied.